REMARKS

Claims 1-15 and 17-31 are pending in the application. Claims 11, 17 and 31 have been amended herein.

Claim Rejections Under 35 U.S.C. § 112

Claims 1-15 and 17-31 stand rejected under 35 U.S.C § 112 as being indefinite for failing to point out and distinctly claim the subject matter which applicant regards as the invention. Withdrawal of the rejection is respectfully requested for at least the following reasons.

In rejecting the claims as being indefinite, the Examiner states that the "address range" is not specifically defined and therefore, could represent the entire address range of memory.   Independent claims 1, 17 and 31 have been amended to define the term "address range", and this amendment is believed to address the Examiner's concerns as set forth on page 4, item (1) of the final Office Action.

Regarding the Examiner's statement that the "action" can represent any action, claims 1, 17 and 31 have also been amended to remove reference to *performing an action*, and now set forth that *the address to which the last-added pointer points is corrected*. This amendment is believed to render moot the Examiner's comment on page 5, item (2) of the final Office Action.

Further, regarding the example provided on page 5, item (3) of the final Office Action, it is respectfully submitted that the outcome described by the Examiner is not possible in the context of the example. More specifically, the Examiner selects the address "2000" as the erroneous value. In the context of the example, however, an erase state is a "1" and a write state is a "0". As discussed in the specification for this particular example, an incorrect pointer **must be greater than the address of the current LUM** (see paragraph [0063] of the published U.S. application, wherein a failed pointer write operation would leave the value as "1"). In the present example, the current LUM is 2200

and, therefore, interruption of a pointer write operation cannot result in a pointer less than 2200 (i.e., the erroneous address value cannot be "2000" as proposed by the Examiner).

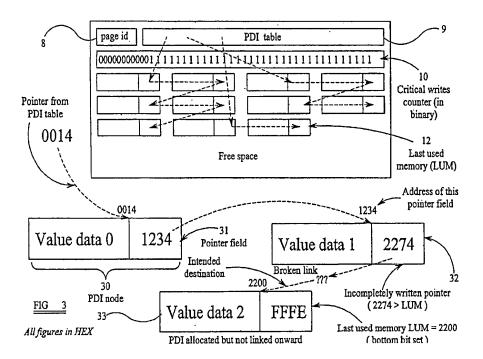In view of the above, withdrawal of the rejection of claims 1-15 and 17-31 is respectfully requested.

Claim Rejections Under 35 U.S.C. § 102

Claims 1-6, 8, 11-13, 17-22, 24 and 27-31 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Publication No. 2001/0007108 (referred to as *Teich*).

Claim 1 sets forth a method of detecting an error in a persistent memory segment, wherein values of at least one data item are stored in temporally allocated memory locations, each new memory location being added to a first end of a block of the memory segment. Further, a pointer to each new memory location is added to an old memory location in the block containing a preceding value of the at least one data item. In performing the method, the address to which the last-added pointer points is determined, and *the determined address is compared with an address range of the memory block including the least new memory location (LUM).* If the determined address is outside the address range, then the address to which the last-added pointer points is corrected.

For example, and with reference to Fig. 3 (reproduced below), in preparing to perform a write operation, the next available space for a node in the memory segment is located (e.g., 2200) and a node is allocated with its pointer field at address 2200. Allocation of the node is performed by changing the lowest bit of the address 2200 to 0, thus leaving FFFE in the pointer field. The value data 2 is stored in the value field of the node 33 and the next non-zero bit of the counter 10 is set to zero. A pointer to the node 33 begins to be written into the pointer field of the node 32 but power is removed, for example by withdrawing the card 1 from the card reader, before this is completed so that an incompletely written pointer 2274 is present in the pointer field of the word 32. In particular, the binary value 0010001000000000 should have been written into the pointer field of the node 32 but, instead, the binary value 0010001001110100 was written

because switching of the third, fifth, sixth and seventh bits from 1 to 0 was not performed before power was removed.

FIG 3
All figures in HEX

During an error check, it is determined that the address field of node 33 is stored at the LUM (which is 2200). This value is compared to the address stored in the pointer field 32 (which is 2274). Since address in the pointer field 32 is not in the range of the memory block that includes the LUM (e.g., 2274>2200), it is concluded that the write operation failed. In response to this error, the address to which the last-added pointer points is corrected.

In rejecting claim 1, the Examiner states that the above features of claim 1 are disclosed at paragraphs [0062]-[0063]. [0066]-[0067] and [0073] of *Teich*. As explained below, *Teich* has not been found to teach the comparing step and, thus, for at least this reason, the rejection must be withdrawn.

Paragraphs [0062]-[0063] set the stage for a recovery in the system of *Teich*. More particularly, paragraph [0062] describes how the Flag Field of the last appended record is set to active, while paragraph [0063] discloses that a power failure leaves an

incomplete chain behind (i.e., a chain where the last record in the chain is not marked as active AND Ptr2 does not point at the same record). In this instance, *Teich* falls back to the fully active previous record. Absent from paragraphs [0062]-[0063] is any teaching that the *address of a last-added pointer is **compared** to an address range of the memory block that includes a LUM*.

Moving now to paragraph [0066], this paragraph discloses a first way that can be implemented to repair a power failure after a particular step. More specifically, *Teich* discloses a method that begins from scratch so as to update all files. Since all previous records hold the old information, a new attempt can be made to synchronously update the files. When new records are appended to the files, the Ptr2 fields are copied to the new records which lead back to the fully active record in each file. No mention is made to "comparing" in paragraph [0066].

Paragraph [0067] describes a second method (i.e., roll forward), wherein all new (current) records in the chain are made fully active, which, according to *Teich*, is more convenient than the method of paragraph [0066]. Again, there is no mention of comparing in paragraph [0067].

Moving now to paragraph [0073], *Teich* discloses that if the new (current) record is active but Ptr2 does not point to the beginning of its own record, Ptr2 is followed to the previous record in the last file. The previous record then is checked to determine if it is fully active and if so, the flag is set to inactive. As is evident, paragraph [0073] also says nothing with respect to *comparing the address of a last-added pointer to an address range of the memory block that includes a LUM*.

None of the paragraphs cited by the Examiner disclose *comparing the determined address (the address to which the last-added pointer points) to an address range of the memory block that includes a LUM*, as recited in claim 1. For at least this reason, the Examiner's rejection does not support that *Teich* anticipates claim 1. Similar comments are applicable to claims 17 and 31.

Accordingly, withdrawal of the rejection of claims 1, 17 and 31, as well as the claims dependent therefrom, is respectfully requested.

Claim Rejections Under 35 U.S.C. § 103

Claims 7, 9, 10, 23, 25 and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Teich* in view of Applicant's Admitted Prior Art (AAPA) within U.S. Publication 2006/0143541 (referred to as *Kay*). Withdrawal of the rejection is respectfully requested for at least the following reasons.

As discussed above, independent claims 1, 17 and 31 are believed to be novel over *Teich*. Further, the AAPA of *Kay* has not been found to make up for the deficiencies of *Teich*. Thus, claims 1, 17 and 31 are also patentably distinct over the combination of *Teich* and the AAPA of *Kay*.

Claims 7, 9, 10, 23, 25 and 26 depend from claim 1 or 17 and, thus can be distinguished over *Teich* and the AAPA of *Kay* for at least the same reasons. Accordingly, withdrawal of the rejections of claims 7, 9, 10, 23, 25 and 26 under 35 U.S.C. § 103(a) is requested.

Conclusion

Accordingly, claims 1-15 and 17-31 are believed to be allowable, and the application is believed to be in condition for allowance. A prompt action to such end is respectfully requested.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Respectfully submitted,

RENNER, OTTO, BOISSELLE & SKLAR, LLP

/Kenneth W. Fafrak/

Kenneth W. Fafrak, Reg. No. 50,689

Mark D. Saralino, Reg. No. 34,243

DATE: October 24, 2008

The Keith Building
1621 Euclid Avenue
Nineteenth Floor
Cleveland, Ohio 44115
(216) 621-1113